
UNIVERSITI SAINS MALAYSIA

Second Semester Examination
Academic Session 2005/2006

April-May 2006

RAK 344E – Sejarah dan Teori Senibina
(History and Theory of Architecture)

Masa: 3 jam
(Duration: 3 hours)

Sila pastikan bahawa kertas peperiksaan ini mengandungi **TUJUH** muka surat yang tercetak sebelum anda memulakan peperiksaan ini.

*Please check that this examination paper consists of **SEVEN** printed pages before you begin the examination.*

Pelajar dibenarkan menjawab semua soalan dalam Bahasa Inggeris ATAU Bahasa Malaysia sahaja.

Students are allowed to answer all questions either in English OR in Bahasa Malaysia only.

Arahan: **Bahagian A: WAJIB** (20%)
 Bahagian B: Jawab **DUA** soalan. (30%)
 Bahagian C: Jawab **DUA** soalan. (20%)
 Bahagian D: Jawab **SEMUA** soalan. (30%)

Instruction *Section A : COMPULSORY* (20%)
 Section B : Answer TWO questions. (30%)
 Section C : Answer TWO questions. (20%)
 Section D : Answer ALL questions. (30%)

Bahagian A: (WAJIB)
Section A (COMPULSORY)

1. (a) Apakah **Model Berkitar Penerangan Sejarah**?
- (b) Bagaimanakah ianya berbeza dengan **Model Linear**?
- (c) Terangkan dengan ringkas **Tamadun Dunia** menggunakan **kedua-dua model penerangan** ini.

(20 markah)

- (a) *What is the **Cyclical Model of Historical Explanation**?*
- (b) *How is it different from the **Linear Model**?*
- (c) *Briefly explain **World Civilization** using **both models**.*

(20 marks)

Bahagian B: Jawab DUA soalan sahaja.
*Section B: Answer **TWO** questions only.*

2. (a) Lakarkan talian waktu tamadun manusia di antara dan termasuk **Pra dan Pasca Zaman Mesir**.
- (b) Jelaskan dengan ringkas budaya yang berkembang pada waktu yang sama dengan **Budaya Mesir** ini.
- (c) Ilustrasikan **bentuk-bentuk arkitektur** kedua-dua budaya di atas dan **rasional arkitektur** sebaliknya.

(15 markah)

- (a) *Sketch out the time line of human civilization between and including the **Pre and Post Egyptian Period**.*
- (b) *Briefly explain the culture which developed at the same time as the **Egyptian Culture**.*
- (c) *Illustrate the **architectural forms** of both cultures and the **rationale** behind the architecture.*

(15 marks)

...3/-

- 3 -

3. (a) Lakarkan talian waktu tamadun manusia di antara dan termasuk **pra dan pasca Zaman Rumawi**.
- (b) Jelaskan dengan ringkas budaya yang berkembang pada waktu yang sama dengan **budaya Rumawi** ini.
- (c) Ilustrasikan **bentuk-bentuk arkitektur** kedua-dua budaya di atas dan **rasional arkitektur** disebaliknya.

(15 markah)

- (a) *Sketch out the time line of human civilization between and including the **pre and post Roman Period**.*
- (b) *Briefly explain the culture which developed at the same time as the **Roman culture**.*
- (c) *Illustrate the **architectural forms** of both cultures and the **rationale** behind the architecture.*

(15 marks)

4. (a) Lakarkan talian waktu tamadun manusia di antara dan termasuk **pra dan pasca Zaman Kristian Awal**.
- (b) Jelaskan dengan ringkas budaya yang berkembang pada waktu yang sama dengan **budaya Kristian Awal** ini.
- (c) Ilustrasikan **bentuk-bentuk arkitektur** kedua-dua budaya di atas dan **rasional arkitektur** disebaliknya.

(15 markah)

- (a) *Sketch out the time line of human civilization between and including the **Pre and Post Early Christian Period**.*
- (b) *Briefly explain the culture which developed at the same time as the **Early Christian Culture**.*
- (c) *Illustrate the **architectural forms** of both cultures and the **rationale** behind the architecture.*

(15 marks)

...4/-

Bahagian C: Jawab **DUA** soalan sahaja.

*Section B: Answer **TWO** question only.*

5. (a) Apakah erti **kuasa** dan bagaimanakah kuasa ini beroperasi dalam penentuan penerangan sejarah **arkitektur Melayu**?
- (b) Apakah **batasan** arkitektur Melayu sebagai asas penerangan sejarah dan apakah cara-cara untuk **memecahkan batasan** ini?

(10 markah)

- (a) *What is **power** and how does power operate in the determination of the historical explanation of **Malay Architecture**?*
- (b) *What are the limits of Malay Architecture as a basis of any historical explanation and in what ways can the **limits be broken**?*

(10 marks)

6. (a) Lakarkan satu contoh arkitektur yang berlandaskan **kapitalisme**.
- (b) Apakah hubungan **ideologi** dengan **kuasa**?

(10 markah)

- (a) *Sketch out an example of an architecture based on capitalism.*
- (b) *What is the relationship between **ideology** and **power**?*

(10 marks)

7. Apakah pandangan anda tentang petikan di bawah dalam konteks sejarah globalisasi?

(10 markah)

What are your views of the following excerpt in the context of the history of globalisation?

(10 marks)

Petikan/Excerpt

"There are many people who practice architecture and have not even the faintest idea of what they are dealing with. So the role of architect gets challenged very often. I strongly feel the need of awareness among community regarding the role of an architect. This, I understand, is well practiced in the West. In a developing community/country like ours I strongly feel the need for the same. We have an architecture community here (a branch of IIA -Indian Institute of Architect, Kochi) which is not such a significant organization (not completely -it's of some use). The organization is not - to the best of my knowledge - very capable of implementing control at the grassroots level. They take big decisions, but can't penalize an architect for taking a very low fee and undercutting other architects in government projects/competitions. (I think this is common out here where the contractor pays the architect - this is in appropriate practice). We have foreign architects practicing in India and the council does nothing to stop them. They (foreigners) find some loopholes and the entire rule is violated. Countries like Switzerland have very firm rules that define the role and the right of practice. In India, apart from the architects, a bunch of people can approve an architectural drawing. In short, the role of the Council is not felt at the grass root level, except the Supreme Court where they might be fighting some high-level cases. All this, I would assume, sends a very mixed signal to ordinary people. The level of awareness has to be tackled in some way too... why do we need these architects?"

Kiran Aryan, March 2, 2006,
http://archnet.org/forum/view.tcl?message_id=130516

BAHAGIAN D: Jawab SEMUA soalan
Section D: Answer ALL questions.

8. Bincangkan bagaimana pengetahuan sains dan matematik telah mempengaruhi identiti rekabentuk senibina bangunan Renaissance. Kaitkan hubungan rekabentuk senibina ini dengan konsep "Antrocentrik" yang diamalkan dalam rekabentuk vila oleh seorang tukang bina ("master builder") yang bernama Andrea Palladio. Anda perlu membuat beberapa lakaran sebagai sebahagian daripada jawapan anda.

Kata kunci: Sains dan matematik, "antrocentrik", Andrea Palladio dan vila.

(10 markah)

Discuss the influence of knowledge in science and mathematics to the identify of the building design in Renaissance Architecture. Find a relationship of this architectural design to the concept of "Antrocentricism" as practiced by Andrea Palladio (Master builder) in his design of villa architecture. You need to do several sketches as parts of your answers.

Keywords: Science and Mathematics, antrocentricism, Andrea Palladio and villa.

(10 marks)

9. Bincangkan bagaimana konsep "Theocentrik" menjadi identiti utama dalam senibina bangunan Parthenon. Mengapakah bangunan ini mempunyai saiz, teknik binaan dan elemen binaan sedemikian rupa sehinggakan bangunan ini dijadikan sebagai salah satu daripada ikon senibina klasikal Yunani oleh sejarawan senibina barat? Apakah keistimewaan rekabentuk senibina bangunan ini? Anda perlu membuat beberapa lakaran sebagai sebahagian daripada jawapan anda.

Kata kunci: Theocentrik, saiz, teknik binaan dan elemen binaan (karakter)

(10 markah)

Discuss the importance of "Theocentricism" concept as a significant identity in architectural design of the Parthenon. Why does this building has a majestic in size, construction technique and construction elements that it is enlisted by the architectural historians from the west as one of the best icons for Greek classical architecture? What are the uniqueness of architectural design of this building? You need to do several sketches as parts of your answers.

Keywords: "Theocentricism", size, construction technique and construction elements.

(10 marks)

...7/-

10. Pada zaman Tamadun Romawi, tukang-tukang bina bangunan (*master builder*) berjaya membangunkan sistem binaan gerbang ("*arches*") dan kubah ("*dome*") untuk memperkayakan rekabentuk senibina dengan konsep bangunan struktur berentang luas ("*long span structure*"). Bincangkan perkembangan konsep ini. Semasa Tamadun Byzantin pula, tukang-tukang bina Romawi di Konstantinopel (Istanbul) selangkah lagi dapat memajukan konsep binaan berentang luas ini dalam rekabentuk senibina bangunan Hagia Sophia. Bincangkan keistimewaan rekabentuk batu ini. Anda perlu membuat beberapa lakaran sebagai sebahagian daripada jawapan anda.

Kata kunci : gerbang ("*arches*"), kubah ("*dome*") dan Hagia Sophia.

(10 markah)

In Roman civilization, their master builder had invented two types of new construction system which are "arches" and "domes" to enrich the architectural design with a new concept of construction technology – "long span structure". Discuss the development of this construction concept. In Byzantine civilization, the Roman master builders in Constantinople (Istanbul) had further developed this long span structural concept to express a new dimension of architectural design in construction of the Hagia Sophia. Discuss this new particular design. You need to do several sketches as parts of your answers.

Keywords: arches, domes and Hagia Sophia.

(10 marks)

-ooo O ooo-